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tggttggtgg tgaggtttac aggtgttccc ttctcttact cctggtgttg gctacaatca 240

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gcgggctcgc ggcgctgggt tcctggtctc cgggccaggg ca atg ttc cgc acg 414
Met Phe Arg Thr
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gca gtg atg atg gcg gcc agc ctg gcg ctg acc ggg gct gtg gtg gct 462
Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly Ala Val Val Ala
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cac gcc tac tac ctc aaa cac cag ttc tac ccc act gtg gtg tac ctg 510
His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr Val Val Tyr Leu
25 30 35

acc aag tcc agc ccc agc atg gca gtc ctg tac atc cag gcc ttt gtc 558
Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile Gln Ala Phe Val
40 45 50

ctt gtc ttc ctt ctg ggc aag gtg atg ggc aag gtg ttc ttt ggg caa 606
Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val Phe Phe Gly Gln
55 60 65

ctg agg gca gca gag atg gag cac ctt ctg gaa cgt tcc tgg tac gcc 654
Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg Ser Trp Tyr Ala
70 75 80

gtc aca gag act tgt ctg gcc ttc acc gtt ttt cgg gat gac ttc agc 702
Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg Asp Asp Phe Ser
85 90 95 100

ccc cgc ttt gtt gca ctc ttc act ctt ctt ctc ttc ctc aaa tgt ttc 750
Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe Leu Lys Cys Phe
105 110 115

cac tgg ctg gct gag gac cgt gtg gac ttt atg gaa cgc agc ccc aac 798
His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu Arg Ser Pro Asn
120 125 130

atc tcc tgg ctc ttt cac tgc cgc att gtc tct ctt atg ttc ctc ctg 846
Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu Met Phe Leu Leu

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        135                 140                 145

ggc atc ctg gac ttc ctc ttc gtc agc cac gcc tat cac agc atc ctg   894
Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr His Ser Ile Leu
    150                 155                 160

acc cgt ggg gcc tct gtg cag ctg gtg ttt ggc ttt gag tat gcc atc   942
Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe Glu Tyr Ala Ile
165                 170                 175                 180

ctg atg acg atg gtg ctc acc atc ttc atc aag tat gtg ctg cac tcc   990
Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr Val Leu His Ser
                185                 190                 195

gtg gac ctc cag agt gag aac ccc tgg gac aac aag gct gtg tac atg   1038
Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys Ala Val Tyr Met
            200                 205                 210

ctc tac aca gag ctg ttt aca ggc ttc atc aag gtt ctg ctg tac atg   1086
Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val Leu Leu Tyr Met
        215                 220                 225

gcc ttc atg acc atc atg atc aag gtg cac acc ttc cca ctc ttt gcc   1134
Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe Pro Leu Phe Ala
    230                 235                 240

atc cgg ccc atg tac ctg gcc atg aga cag ttc aag aaa gct gtg aca   1182
Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys Lys Ala Val Thr
245                 250                 255                 260

gat gcc atc atg tct cgc cga gcc atc cgc aac atg aac acc ctg tat   1230
Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met Asn Thr Leu Tyr
                265                 270                 275

cca gat gcc acc cca gag gag ctc cag gca atg gac aat gtc tgc atc   1278
Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp Asn Val Cys Ile
            280                 285                 290

atc tgc cga gaa gag atg gtg act ggt gcc aag aga ctg ccc tgc aac   1326
Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg Leu Pro Cys Asn
        295                 300                 305

cac att ttc cat acc agc tgc ctg cgc tcc tgg ttc cag cgg cag cag   1374
His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe Gln Arg Gln Gln
    310                 315                 320

acc tgc ccc acc tgc cgt atg gat gtc ctt cgt gca tcg ctg cca gcg   1422
Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala Ser Leu Pro Ala
325                 330                 335                 340

cag tca cca cca ccc ccg gag cct gcg gat cag ggg cca ccc cct gcc   1470
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Gln Ser Pro Pro Pro Pro Glu Pro Ala Asp Gln Gly Pro Pro Pro Ala
                345                 350                 355

ccc cac ccc cca cca ctc ttg cct cag ccc ccc aac ttc ccc cag ggc   1518
Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn Phe Pro Gln Gly
            360                 365                 370

ctc ctg cct cct ttt cct cca ggc atg ttc cca ctg tgg ccc ccc atg   1566
Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu Trp Pro Pro Met
        375                 380                 385

ggc ccc ttt cca cct gtc ccg cct ccc ccc agc tca gga gag gct gtg   1614
Gly Pro Phe Pro Pro Val Pro Pro Pro Pro Ser Ser Gly Glu Ala Val
    390                 395                 400

gct cct cca tcc acc agt gca gca gcc ctt tct cgg ccc agt gga gca   1662
Ala Pro Pro Ser Thr Ser Ala Ala Ala Leu Ser Arg Pro Ser Gly Ala
405                 410                 415                 420

gct aca acc aca gct gct ggc acc agt gct act gct gct tct gcc aca   1710
Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala Ala Ser Ala Thr
                425                 430                 435

gca tct ggc cca ggc tct ggc tct gcc cca gag gct ggc cct gcc cct   1758
Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala Gly Pro Ala Pro
            440                 445                 450

ggt ttc ccc ttc cct cct ccc tgg atg ggt atg ccc ctg cct cca ccc   1806
Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro Leu Pro Pro Pro
        455                 460                 465

ttt gcc ttc ccc cca atg cct gtg ccc cct gcg ggc ttt gct ggg ctg   1854
Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly Phe Ala Gly Leu
    470                 475                 480

acc cca gag gag cta cga gct ctg gag ggc cat gag cgg cag cac ctg   1902
Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu Arg Gln His Leu
485                 490                 495                 500

gag gcc cgg ctg cag agc ctg cgt aac atc cac aca ctg ctg gac gcc   1950
Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr Leu Leu Asp Ala
                505                 510                 515

gcc atg ctg cag atc aac cag tac ctc acc gtg ctg gcc tcc ttg ggg   1998
Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu Ala Ser Leu Gly
            520                 525                 530

ccc ccc cgg cct gcc act tca gtc aac tcc act gag ggg act gcc act   2046
Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu Gly Thr Ala Thr
        535                 540                 545
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aca gtt gtt gct gct gcc tcc tcc acc agc atc cct agc tca gag gcc   2094
Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro Ser Ser Glu Ala
    550                 555                 560

acg acc cca acc cca gga gcc tcc cca cca gcc cct gaa atg gaa agg   2142
Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro Glu Met Glu Arg
565                 570                 575                 580

cct cca gct cct gag tca gtg ggc aca gag gag atg cct gag gat gga   2190
Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met Pro Glu Asp Gly
                585                 590                 595

gag ccc gat gca gca gag ctc cgc cgg cgc cgc ctg cag aag ctg gag   2238
Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu Gln Lys Leu Glu
            600                 605                 610

tct cct gtt gcc cac tga cactgcccca gcccagcccc agcctctgct          2286
Ser Pro Val Ala His
        615
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Ala Val Val Ala His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr
20 25 30

Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile
35 40 45

Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val
50 55 60

Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg
65 70 75 80

Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg
85 90 95

Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe
100 105 110

Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu
115 120 125

Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu
130 135 140

Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr
145 150 155 160

His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe
165 170 175

Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr
180 185 190

Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys

195 200 205

Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val
210 215 220

Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe
225 230 235 240

Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys
245 250 255

Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met
260 265 270

Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp
275 280 285

Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg
290 295 300

Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe
305 310 315 320

Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala
325 330 335

Ser Leu Pro Ala Gln Ser Pro Pro Pro Pro Glu Pro Ala Asp Gln Gly
340 345 350

Pro Pro Pro Ala Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn
355 360 365

Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu
370 375 380

Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Pro Ser Ser
385 390 395 400

Gly Glu Ala Val Ala Pro Pro Ser Thr Ser Ala Ala Ala Leu Ser Arg
405 410 415

Pro Ser Gly Ala Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala
420 425 430

Ala Ser Ala Thr Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala
435 440 445

Gly Pro Ala Pro Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro
450 455 460

Leu Pro Pro Pro Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly

465 470 475 480

Phe Ala Gly Leu Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu
485 490 495

Arg Gln His Leu Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr
500 505 510

Leu Leu Asp Ala Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu
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Ala Ser Leu Gly Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu
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Gly Thr Ala Thr Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro
545 550 555 560

Ser Ser Glu Ala Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro
565 570 575

Glu Met Glu Arg Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met
580 585 590

Pro Glu Asp Gly Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu
595 600 605

Gln Lys Leu Glu Ser Pro Val Ala His
610 615